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 Approved _____

NRCS
NATIONAL RESOURCES CONSERVATION SERVICE
 UNITED STATES DEPARTMENT OF AGRICULTURE

GENERAL NOTES

1. INSTALLATION AND MATERIALS SHALL MEET THE NATURAL RESOURCES CONSERVATION SERVICE (NRCS) CONSERVATION PRACTICE STANDARDS AND SPECIFICATIONS IRRIGATION SYSTEM, MICROIRRIGATION CODE 441 AND IRRIGATION WATER CONVEYANCE, -----, UNDERGROUND, PLASTIC PIPELINE, CODE 430 -----, ANY PLAN MODIFICATION SHALL BE CLEARLY INDICATED ON THIS DRAWING AND SHALL BE APPROVED BY THE NRCS PRIOR TO INSTALLATION.
2. THE INSTALLER SHALL CERTIFY THAT HIS/HER INSTALLATION COMPLIES WITH THE STANDARDS AND SPECIFICATIONS LISTED ABOVE AND AS SPECIFIED ON THESE PLANS. THE CERTIFICATION SHALL IDENTIFY THE MANUFACTURER AND MARKINGS ON THE PIPE USED. THE INSTALLER (WHEN OTHER THAN THE OWNER) SHALL FURNISH A WRITTEN GUARANTEE TO THE OWNER THAT PROTECTS THE OWNER AGAINST DEFECTIVE WORKMANSHIP AND MATERIALS FOR NOT LESS THAN ONE YEAR. COPIES SHALL BE PROVIDED FOR NRCS RECORDS.
3. ALL PERMITS NEEDED TO INSTALL AND OPERATE THIS SYSTEM SHALL BE THE RESPONSIBILITY OF THE OWNER.
4. THE IRRIGATION SYSTEM SHALL BE OPERATED IN ACCORDANCE WITH THE IRRIGATION WATER MANAGEMENT PLAN.

MATERIAL NOTES

1. PIPE MATERIAL- MAINS AND SUBMAINS

NOM PIPE SIZE, IN	PIP SDR NO.	MATRL (PVC ETC)	PRESSURE RATING PSI	INSIDE DIAM. IN	LENGTH FT
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2. LATERALS (TUBING) SHALL WITHSTAND A WORKING PRESSURE BASED ON MANUFACTURER'S DATA.

WORKING PRESSURE PSI	INSIDE DIAM. IN. (MM)	LENGTH FT
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3. THE FILTER NET OPENING DIAMETER SHALL NOT EXCEED ----- OR AS RECOMMENDED BY THE Emitter MANUFACTURER WHEN AVAILABLE.

4. EMITTERS:

IRRIGATION UNIT	DISCHARGE RATE GPM/ AT PSI	
EMITTER SIZE (IN.)		
EMITTER DIAMETER (FT.)		
SPACING (FT X FT.)		
TOTAL NO. EMITTERS		
RISER LENGTH (IN.)		
MANUFACTURER / BRAND		

5. APPURTENANCES (THRUST BLOCKS, VALVES, ETC.)

TYPE	SIZE	NUMBER	LOCATION
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CONSTRUCTION NOTES

1. SEE CONSERVATION PRACTICE STANDARD CODE 430 SPECIFICATIONS FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.
- DEPTH OF COVER FOR PIPELINE - MAINS AND SUBMAINS
DIAMETER, IN. -----
DEPTH OF COVER, IN. -----
3. LATERALS (TUBING):
---- INSTALLED ABOVE GROUND AND ANCHORED ON ----- FT INTERVALS
---- INSTALLED UNDERGROUND AT A DEPTH OF ----- IN.
(MAY BE LESSER DEPTH AT BASE OF TREE).
4. EMITTERS SHALL BE STABILIZED TO MAINTAIN SPRAY INTEGRITY.
5. PRESSURE RELIEF VALVES SHALL BE SET TO OPEN AT A PRESSURE NOT GREATER THAN 3 PSI ABOVE THE PRESSURE RATING OF THE PIPE. PRESSURE RELIEF VALVES SHALL BE MARKED AT THE PRESSURE THEY START TO OPEN. ADJUSTABLE VALVES SHALL BE MARKED OR OTHERWISE ALTERED TO PREVENT CHANGING THE PRESSURE MARKED ON THE VALVE.
6. PLASTIC PIPE EXPOSED TO DIRECT SUNLIGHT SHALL BE MADE OF ULTRAVIOLET RESISTANCE MATERIALS OR PROTECTED BY COATING OR SHIELDING.
7. PIPELINES CROSSING ROADS, CANALS, ETC., SHALL BE PROTECTED AND/OR SUPPORTED.
8. AIR-RELEASE VALVES SHALL BE INSTALLED ON ALL SUMMITS, WHICH ARE NOT PERMANENTLY AND ADEQUATELY VENTED TO THE ATMOSPHERE, AND ALL SUMMITS ENCOUNTERED DURING CONSTRUCTION ALTHOUGH NOT SHOWN ON THE DRAWINGS. AIR-RELEASE VALVES AT SUMMITS SHOWN ON THE DRAWINGS MAY BE ELIMINATED WHEN TRENCH CONSTRUCTION REMOVES THE SUMMIT.
9. BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED WHERE REQUIRED BY LAW. (TOXIC) (NON-TOXIC) CHEMICALS (WILL) (WILL NOT) BE INJECTED INTO THE SYSTEM.
10. FLUSH VALVES SHALL BE INSTALLED AT THE END OF ALL SUBMAINS.
11. JOINTS AND CONNECTIONS SHALL BE INSTALLED IN CONFORMANCE WITH CONSERVATION PRACTICE STANDARD, IRRIGATION WATER CONVEYANCE, CODE 430. Emitter CONNECTIONS TO THE LATERAL LINES (TUBING) SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
12. THE HEAD LOSS THROUGH A CLEAN FILTER SHALL NOT EXCEED 5 PSI. HEAD LOSS THROUGH SAND SEPARATORS SHALL BE BASED ON MANUFACTURER'S DATA AND RECOMMENDATIONS.
13. PUMP, POWER UNIT, FILTER, CHEMICAL INJECTORS AND OTHER APPURTENANCES SHALL BE INSTALLED ON A FIRM BASE AND IN PROPER ALIGNMENT. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION AND ALL PERTINENT SAFETY CODES.
14. THE IRRIGATION SYSTEM SHALL BE TESTED FOR DESIGN OPERATING PRESSURES, DISCHARGE RATES, LEAKAGE AND PROPER FUNCTIONING. DURING THE INITIAL START UP, THE PIPELINES AND LATERALS SHALL BE FLUSHED FOR SUFFICIENT TIME TO REMOVE ANY SEDIMENT OR FOREIGN MATERIAL PRIOR TO THE PLACEMENT OF END PLUGS OR CLOSURE OF FLUSH VALVES.

LEGEND

- PUMP -----
- PIPELINE, MAIN (M) & SUBMAIN (SM) -----
- LATERAL, L -----
- TREE -----
- VALVES:
SHUTOFF -----
- FLUSH -----
- AIR-RELEASE -----
- THRUST BLOCK -----
- CONTOUR LINE -----
- CUT LINE -----



- ① PUMP AND MOTOR ----- GPM AT ----- FT.TDH
- ② PUMP DISCHARGE PIPE: DIAMETER ----- INCHES
- AIR-RELEASE VALVE: TYPE ----- DIAMETER ----- INCHES
- CHECK VALVE ○ LOW PRESSURE DRAIN ○ CHEMICAL INJECTION PORT
- PRESSURE GAGE
- FILTER
- FLOW METER
- PRESSURE RELEASE VALVE: DIA. ----- INCHES; PRESSURE SET AT ----- PSI
- SOURCE OF WATER: -----

PUMP SCHEMATIC

File No. _____

Drawing No. _____

REVISIONS		
DATE	APPROVED	TITLE
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MICROIRRIGATION SYSTEM PLAN	
STANDARD DWG. NO. FL-441	
DATE 12/02	SHEET OF